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CENTRAL INTELLIGENCE AGENCY

# INFORMATION REPORT

REPORT

CD NO.

COUNTRY Poland

DATE DISTR. OCT 2 1950

SUBJECT Production of Ferroconcrete Railroad Ties

NO. OF PAGES 2

PLACE ACQUIRED

NO. OF ENCLS. (LISTED BELOW)

EVALUATE

DATE OF INFO.

SUPPLEMENT TO REPORT NO.

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1. From 4-4.6 million railroad ties are required yearly by the Ministry of Communications but wood for only about 2-2.5 million ties is obtainable from the state forests. This was the primary reason for the introduction of the ferroconcrete tie which, furthermore, lasts about 60 years whereas the wooden tie lasts 15 years.

2. The yearly requirements of railroad ties by the Polish railroads are as follows:

   a. Current maintenance — 2 million

   b. Replacements of ties on lines not repaired during the war — 1-1.1 million

   c. Construction of new lines, development of junctions, new branch lines, doubling of tracks — 1-1.5 million

3. Formerly the ferroconcrete tie was produced by two enterprises known as Wibrobeton and Andrzejewski at Dabrowa Gornicza. It was made complete with the steel hooks already embedded in it,* and the rail was slipped through these hooks and fastened with oak wedges. However, this type of tie required much manipulation of the rails and thus proved undesirable.

4. Upon order of the Ministry of Communications, production of a new type of tie** was started in 1949 at the Graclik Works at Janow Wielkopolski and the Sabo Works at Pszczolki near Gdansk. This tie is produced on the "vibro" principle—approximately 3,500 vibrations per minute—and is kept in a steel mold for 24 hours. After 28 days, resistance tests are carried out by means of concrete blocks at a pressure of 400 kg per sq cm. Then the final test, which is required by the Ministry of Communications, is made:

   a. The tie is laid on supports 40 cm from the place of contact with the rail.

   b. Pressure of 20 tons on the place where the rail is to rest is then exerted and is maintained for 10 minutes.

   This last test proved that a pressure of 20 tons is excessive since fissures appeared upon 12-15 tons' pressure. Therefore, the requirements for the final test are in the process of being changed.

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5. During 1949, the first year of production, the output of this new type of ferroconcrete tie did not exceed 100,000.

6. Ferroconcrete ties are being tried on the Gdynia-Gdansk-Tczew sector and on several sectors under the jurisdiction of the Katowice and Poznan railroad administrations.

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* Comment: See Attachment I, type A.

** Comment: See Attachment I, type B; Attachment II; and Attachment III, type A.

Attachments: I Sketch showing old and new railroad ties.

II Sketch of new tie.

III Sketch showing armatures of new and old ties.



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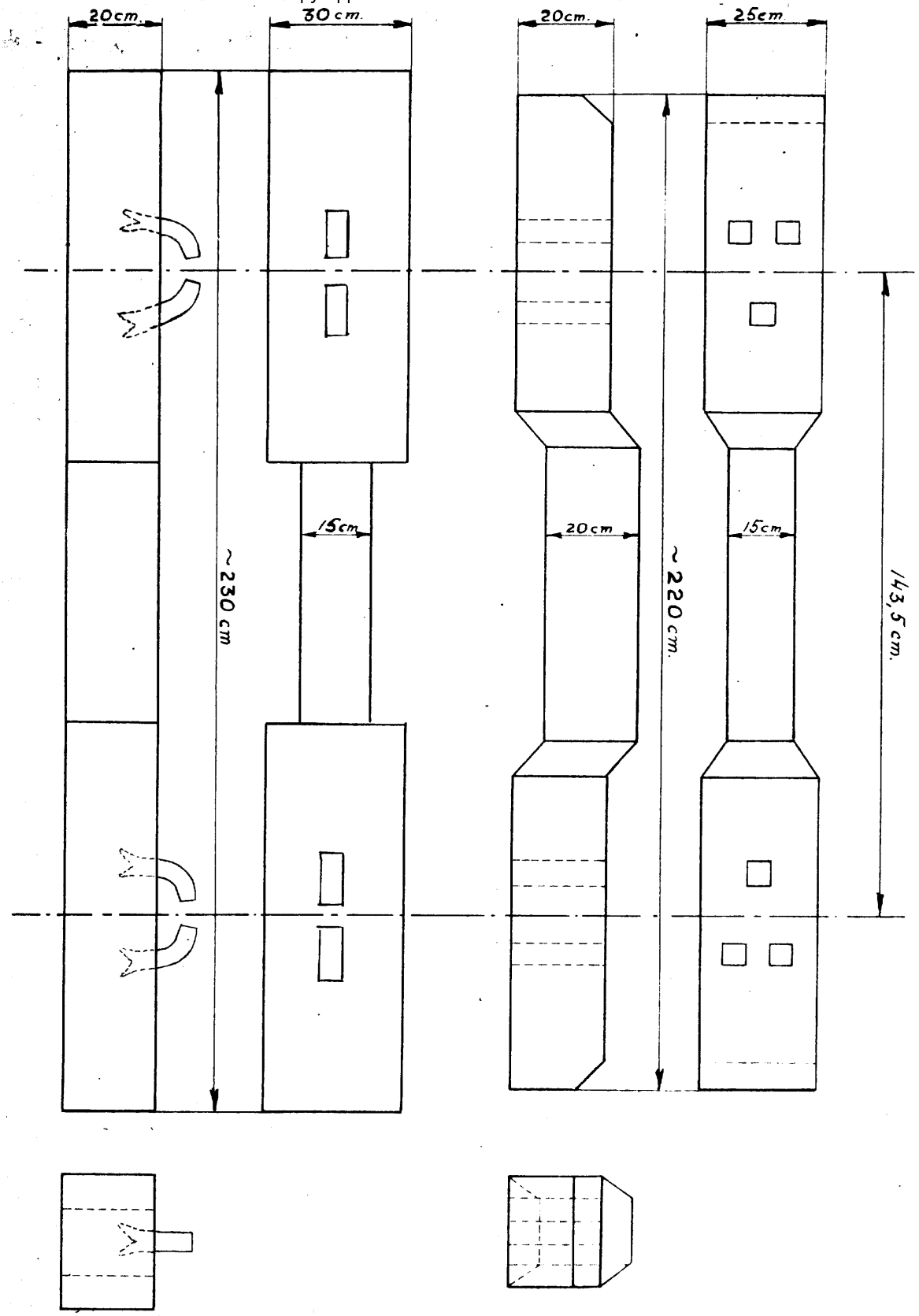


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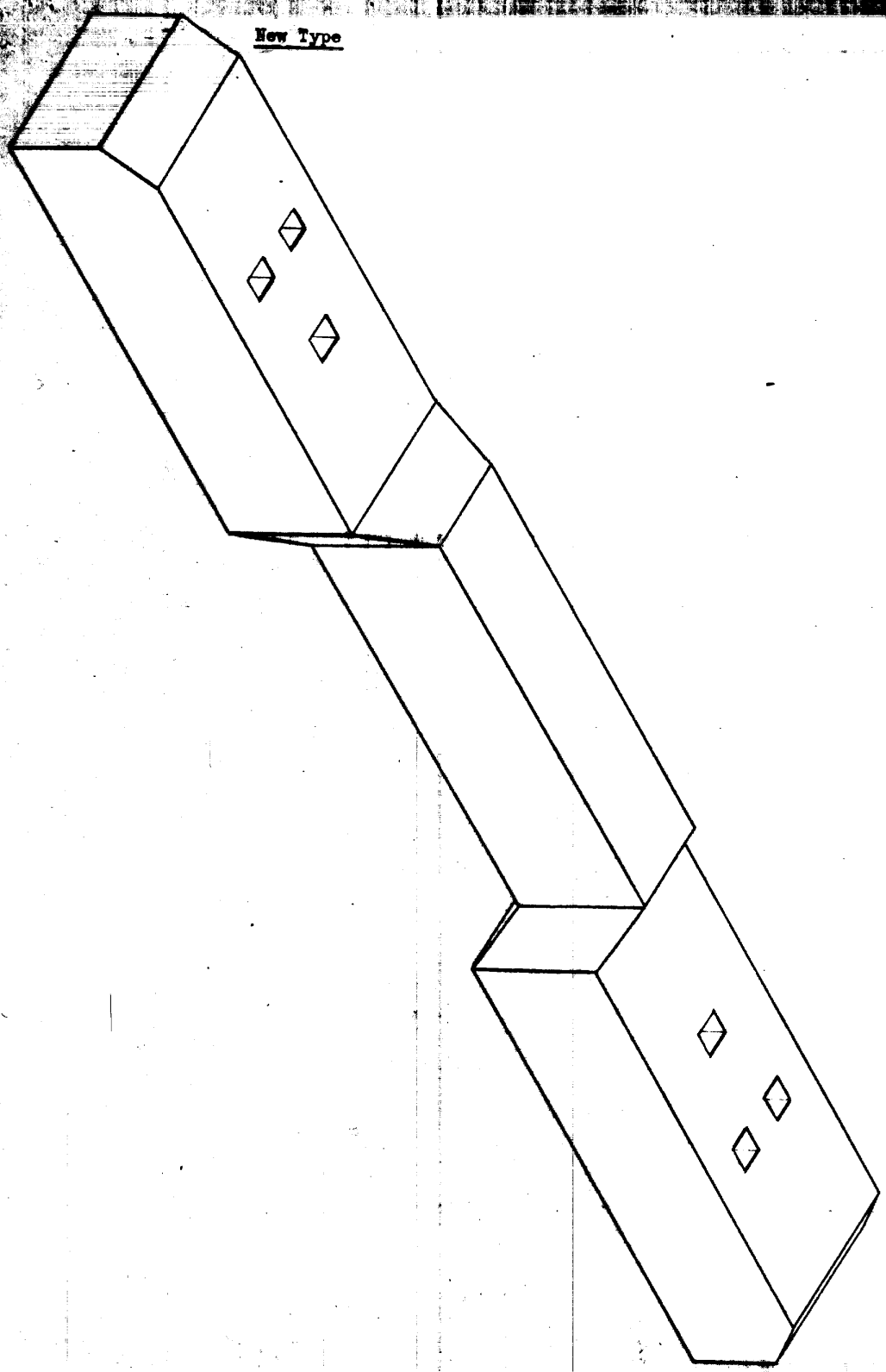
New Type



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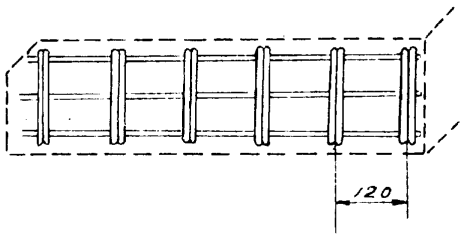
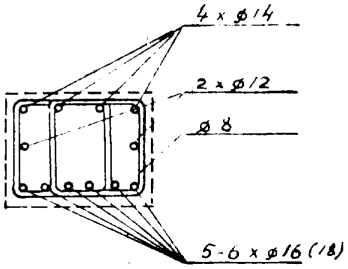
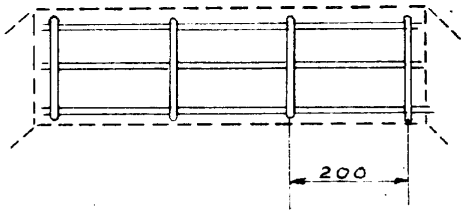
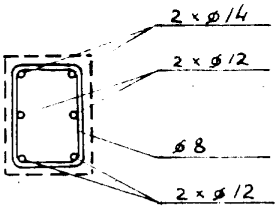
tie




tie

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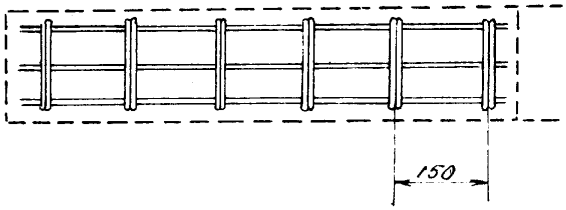


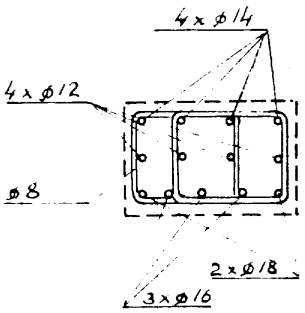


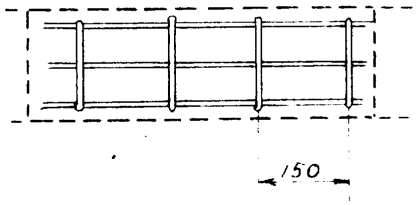


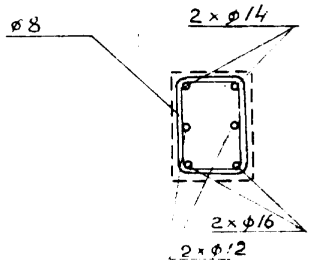


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